

QUARTERLY PROGRESS REPORT NO. 4 (CY 2017)
NBU ASR Demonstration Project

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From:
Fred M. Blumberg

Date:
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ARCADIS Project No.:
40256004.0000

Subject:
Quarterly Progress Report for the NBU ASR Demonstration Project (**Contract No. 1600011957**) for **October 1, 2017 through December 31, 2017**.

Introduction:

The New Braunfels Utilities (NBU) Aquifer Storage and Recovery (ASR) Demonstration Project is being partially funded by the Texas Water Development Board (TWDB) under Rider 25 to HB 1 (General Appropriations Act) of the 84th Legislature. The "Project" generally consists of: coordination with TCEQ; design for wireline coring in the brackish Edwards Aquifer; wireline coring; design of a monitor well in the brackish Edwards Aquifer; construction of the monitor well and collection of data; preparation of draft and final reports; and presentations on the Project.

The Project Contractor is the Edwards Aquifer Authority (EAA) and the primary Project Participant is NBU. The Project consulting and engineering team consists of Arcadis U.S., Inc.; ASR Systems, LLC; and INTERA, Inc. (the "Arcadis Team").

The purposes of this Quarterly Progress Report are to explain what work has been accomplished during the reporting period, and to describe any potential or anticipated challenges.

Work Completed:

Task 1: Project Management. During this reporting period project management activities included communication with EAA and NBU, and among the Arcadis team. A TWDB demonstration project kickoff meeting will be held in early 2018 as part of the initiation of construction of the wireline core and monitor well.

NBU continues working on the authorizations necessary to use the New Braunfels Regional Airport as the location for NBU ASR program. In the meantime, NBU has acquired a 1.067-acre tract of land adjacent to the Airport for purposes of completing the Project. NBU closed on the purchase of the property on October 23, 2017.

On December 7, 2017 NBU, EAA and the Arcadis Team held the second Work Group meeting required under the EAA-NBU Interlocal Agreement.

The EAA staff continued to provide general review and assessment of the work by NBU and Arcadis related to Tasks 3, 4, 5 and 6 for coring design and construction, and monitor well design and construction.

Task 2: Coordination with TCEQ. No work on this task has been completed in this reporting period.

Task 3: Coring Design. ASR Systems completed work on the specifications, and those technical requirements were incorporated into the NBU Request for Bid (RFB) documents for the coring.

Task 4: Wireline Coring. Arcadis reviewed the draft NBU RFB and made comments and changes that were incorporated into the final documents. NBU issued the notice to prospective bidders on November 22, 2017. A Pre-Bid Conference with prospective bidders was held on December 12, 2017. Bids on the coring will be due on January 9, 2018.

Task 5: Monitor Well Design. INTERA completed the specifications, and those technical requirements were incorporated into the NBU RFB documents for the monitor well construction.

Task 6: Monitor Well Construction and Data Collection. Arcadis reviewed the draft NBU RFB and made comments and changes that were incorporated into the final documents. NBU issued the notice to prospective bidders on November 22, 2017. A Pre-Bid Conference with prospective bidders was held on December 12, 2017. Bids on the coring will be due on January 9, 2018.

Task 7: Draft and Final Reports. No work on this task has been completed in this reporting period.

Task 8: Presentations. In September 2017 Fred Blumberg submitted an abstract for a presentation on the ASR demonstration projects to *Texas Water 2018*. On December 15, 2017, Mr. Blumberg was notified that the abstract had been approved. The presentation will be given by members of the project team on April 26, 2018.

Challenges Identified:

NBU's land acquisition activities at the Regional Airport have taken longer than anticipated. On January 25, 2017 NBU and the City of New Braunfels submitted an application to the Texas Department of Transportation (TXDOT) Aviation Division. After the TXDOT review, the application has been forwarded to the Federal Aviation Administration (FAA) for final approval.

To move ahead with the Project, NBU purchased a 1.067-acre tract of land adjacent to the Airport. That purchase will enable NBU to move forward with constructing the wireline core and the monitor well.